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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**Appl. No. :** 10/787,112 **Confirmation No.** 5084  
**Applicant :** MIMATSU, Y. et al.  
**Filed :** February 27, 2004  
**Title :** METHOD AND APPARATUS FOR SETTING ACCESS  
RESTRICTION INFORMATION  
**TC/AU :** 2131  
**Examiner :** TBD  
**Docket No. :** TSM-35  
**Customer No.:** 24956

**PETITION TO MAKE SPECIAL**  
**(ACCELERATED EXAMINATION UNDER MPEP § 708.02(VIII))**

**MAIL STOP PETITIONS**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The Applicants petition the Commissioner to make the above-identified application special in accordance with 37 CFR §1.102(d). In support of this Petition, pursuant to MPEP § 708.02(VIII), Applicants state the following.

**(A) REQUIRED FEE**

This Petition is accompanied by the fee set forth in 37 CFR § 1.117(h).

Payment of the fee has been made in the manner set forth below in Section (G).

**(B) ALL CLAIMS ARE DIRECTED TO A SINGLE INVENTION**

Claims 1-20 are pending in the application. All the pending claims of the application are directed to a single invention. If the Office determines that all claims in the application are not directed to a single invention, Applicant will make election without traverse as a prerequisite to the grant of special status in conformity with established telephone restriction practice.

The claimed invention, as set forth in independent claims 1 and 9-15, is generally directed to setting up access restriction information on each port of a new storage device so that the ports of the new storage device have the access restriction that was in effect on the old storage device, as for example, in the case in which a host accesses a storage area on the old storage device through the new storage device. Under independent claim 1, the invention is an access restriction information setting method which sets up access restriction information on a storage device, in a storage area network system having the storage device which determines right or wrong of an access request to a volume in accordance with access restriction information which is set up on a port which receives the request, and a host computer which transmits an access request to said storage device through a first network, comprising: a first step for obtaining access restriction information and information of a volume which are set up on each port that a first storage device has, through a second network; a second step for obtaining attribute information including a port type and a status of utilization of each port that a second storage device has, from said second storage device through said second network; a

third step for selecting a port of said second storage device which is utilized for an access to a volume that said first storage device has or had, on the basis of attribute information of each port that said second storage device has, which is obtained in said second step; and a fourth step for setting up, on a port of said second storage device which is selected in said third step, access restriction information of a port of said first storage device to which a volume, of which the port is utilized for an access, is assigned, on the basis of access restriction information and information of a volume of each port that said first storage device has, which are obtained in said first step.

Additionally, under independent claim 9, the invention is an access restriction information setting apparatus which sets up access restriction information on a storage device, in a storage area network system having the storage device which determines right or wrong of an access request to a volume in accordance with access restriction information which is set up on a port which receives the request, and in a host computer which transmits an access request to said storage device through a first network, comprising: obtaining unit which obtains access restriction information and information of a volume which are set up on each port that a first storage device has, and attribute information including a port type and a status of utilization of each port that a second storage device has, through a second network; selecting unit which selects a port of said second storage device which is utilized for an access to a volume that said first storage device has or had, on the basis of attribute information of each port that said second storage device has, which is

obtained in said obtaining unit; and setting unit which sets up, on a port of said second storage device which is selected in said selecting unit, access restriction information of a port of said first storage device to which a volume, of which the port is utilized for an access, is assigned, on the basis of access restriction information and information of a volume of each port that said first storage device has, which are obtained in said obtaining unit.

Furthermore, under independent claim 10, the invention is an access restriction information setting system having first and second storage devices which determine right or wrong of an access request to a volume in accordance with access restriction information which is set up on a port which receives the request, a host computer which transmits an access request to said first and second storage devices through a first network, and an access restriction information setting device which is connected to said first and second storage devices through a second network, wherein said access restriction information setting device comprising: obtaining unit which obtains access restriction information and information of a volume which are set up on each port that said first storage device has, and attribute information including a port type and a status of utilization of each port that said second storage device has, through a second network; selecting unit which selects a port of said second storage device which is utilized for an access to a volume that said first storage device has or had, on the basis of attribute information of each port that said second storage device has, which is obtained in said obtaining unit; and setting unit which sets up, on a port of said second storage device which is selected

in said selection unit, access restriction information of a port of said first storage device to which a volume, of which the port is utilized for an access, is assigned, on the basis of access restriction information and information of a volume of each port that said first storage device has, which are obtained in said obtaining unit.

In addition, under independent claim 11, the invention is a computer-readable program for setting access restriction information on a storage device, in a storage area network system having the storage device which determines right or wrong of an access request to a volume in accordance with access restriction information which is set up on a port which receives the request, and a host computer which transmits an access request to said storage device through a first network, wherein said program makes a computer execute: a first step for obtaining access restriction information and information of a volume which are set up on each port that a first storage device has, through a second network; a second step for obtaining attribute information including a port type and a status of utilization of each port that a second storage device has, from said second storage device through said second network; a third step for selecting a port of said second storage device which is utilized for an access to a volume that said first storage device has or had, on the basis of attribute information of each port that said second storage device has, which is obtained in said second step; and a fourth step for setting up, on a port of said second storage device which is selected in said third step, access restriction information of a port of said first storage device to which a volume, of which the port is utilized for an access, is assigned, on the basis of access restriction information and information of a

volume of each port that said first storage device has, which are obtained in said first step.

Also, under independent claim 12, the invention is an access restriction information setting method in which, in a storage area network system having the storage device which determines right or wrong of an access request to a volume in accordance with access restriction information which is set up on a port which receives the request, and a host computer which transmits an access request to said storage device through a first network, an access restriction information setting device which is connected to said storage device through a second network sets up access restriction information on said storage device, wherein said access restriction information setting device obtains access restriction information and information of a volume which are set up on each port that a first storage device has, through said second network, obtains attribute information including a port type and a status of utilization of each port that said second storage device has, from said second storage device through said second network, selects a port of said second storage device which is utilized for an access to a volume that said first storage device has or had, on the basis of attribute information of each port that said second storage device has, which is obtained as above, and sets up, on a port of said second storage device which is selected as above, access restriction information of a port of said first storage device to which a volume, of which the port is utilized for an access, is assigned, on the basis of access restriction information and information of a volume of each port that said first storage device has, which are obtained as above.

Further, under independent claim 13, the invention is an access restriction information setting apparatus which sets up access restriction information on a storage device, in a storage area network system having the storage device which determines right or wrong of an access request to a volume in accordance with access restriction information which is set up on a port which receives the request, and a host computer which transmits an access request to said storage device through a first network, comprising: a network I/F unit which is utilized for connecting to said second network, and a calculation unit, wherein, said calculation unit obtains access restriction information and information of a volume which are set up on each port that a first storage device has, from said first storage device and attribute information including a port type and a status of utilization of each port that the second storage device has, from said second storage device, through said network I/F unit, selects a port of said second storage device which is utilized for an access to a volume that said first storage device has or had, on the basis of attribute information of each port that said second storage device has, which is obtained as above, and sets up, on a port of said second storage device which is selected as above, through said network I/F unit, access restriction information of a port of said first storage device to which a volume, of which the port is utilized for an access, is assigned, on the basis of access restriction information and information of a volume of each port that said first storage device has, which are obtained as above.

Additionally, under independent claim 14, the invention is an access restriction information setting system having first and second storage devices which determine

right or wrong of an access request to a volume in accordance with access restriction information which is set up on a port which receives the request, a host computer which transmits an access request to said first and second storage devices through a first network, and an access restriction information setting device which is connected to said first and second storage devices through a second network, wherein said access restriction information setting apparatus has a network I/F unit which is utilized for connecting to said second network, and a calculation unit, and said calculation unit obtains access restriction information and information of a volume which are set up on each port that a first storage device has, and attribute information including a port type and a status of utilization of each port that a second storage device has, from said second storage device, through said network I/F unit, selects a port of said second storage device which is utilized for an access to a volume that said first storage device has or had, on the basis of attribute information of each port that said second storage device has, which is obtained as above, and sets up, on a port of said second storage device which is selected as above, through said network I/F unit, access restriction information of a port of said first storage device to which a volume, of which the port is utilized for an access, is assigned, on the basis of access restriction information and information of a volume of each port that said first storage device has, which are obtained as above.

Finally, under independent claim 15, the invention is an access restriction information setting system having first and second storage devices which determine right or wrong of an access request to a volume in accordance with access restriction



information which is set up on a port which receives the request, a host computer which transmits an access request to said first and second storage devices, a Fibre Channel switch which configures a Fibre Channel network which connects between said first and second storage devices and said host computer, a management server which sets up access restriction information on said first and second storage devices, and a LAN which connects between said first and second storage devices and said management server, wherein said first and second storage devices have a FC I/F which connects to said Fibre Channel switch, and said management server has a LAN I/F unit which is utilized for connecting to said LAN, and a calculation unit, and said calculation unit obtains access restriction information and information of a volume which are set up on each port of the FC I/F that a first storage device has from said first storage device, and attribute information including a port type and a status of utilization of each port of the FC I/F that the second storage device has, from said second storage device, through said LAN I/F unit, selects a port of a FC I/F on said second storage device which is utilized for an access to a volume that said first storage device has or had, on the basis of attribute information of each port of the FC I/F that said second storage device has, which is obtained as above, and sets up, on a port of the FC I/F of said second storage device which is selected as above through said LAN I/F unit, access restriction information of a port of the FC I/F of said first storage device to which a volume, of which the port is utilized for an access, is assigned, on the basis of access restriction information and information of a volume

of each port of the FC I/F that said first storage device has, which are obtained as above.

**(C) PRE-EXAMINATION SEARCH**

A pre-examination search has been conducted, directed to the invention as claimed. The pre-examination search was conducted in the following US Manual of Classification areas:

<u>Class</u>	<u>Subclass</u>
707	200-204
709	213-216, 220, 223, 225, 229
710	8, 13, 72-74
711	100, 111-114, 118, 147, 152, 153, 161-164
714	5-7

Furthermore, a keyword search was conducted on the USPTO's EAST database, including the US patent database, the published US patent applications database, and the European and Japanese patent abstract databases. In addition, a search for non-patent literature was conducted on the ACM (Association for Computing Machinery) online databases.

**(D) REFERENCES DEEMED MOST-CLOSELY RELATED TO THE SUBJECT MATTER ENCOMPASSED BY THE CLAIMS**

Based upon a review of the documents located by the search and the documents already of record in the application, the references deemed to be most-closely related to the subject matter encompassed by the claims are listed below.

These documents were made of record in the present application by the Information Disclosure Statement filed May 19, 2005, and June 10, 2004.

<u>Document No.</u>	<u>Inventor</u>
US 6484173	O'Hare et al.
US 6598134	Ofek et al.
US 6745281	Saegusa
US 6799255	Blumenau et al.
US 6816948	Kitamura et al.
US 6851020	Matsumoto et al.
US 20010052018	Yokokura
WO 9709676	Ofek et al.

Because all of the above-listed references have been made of record in the present application by Information Disclosure Statements, in accordance with MPEP § 708.02(VIII)(D), additional copies of these documents have not been submitted with this Petition.

## **(E) DETAILED DISCUSSION OF THE REFERENCES**

Following a brief discussion of the invention, the references deemed most-closely related are discussed below in Section (E)2, pointing out, with the particularity required by 37 CFR 1.111 (b) and (c), how the claimed subject matter is patentable over the teachings of these documents.

### **1. Discussion of the Invention**

Under the invention, access restriction information is set up on each port of a new storage device which is utilized for access to a volume that an old storage device has or had. The access restriction information is obtained for the port on the

old storage system, along with information regarding the volume on the old storage system. This information is obtained through a second network, rather than through a first network that a host computer uses to transmit an access request to the storage devices. It is submitted that the cited references, whether taken individually, or in combination, fail to teach or suggest the invention as claimed in independent claims 1 and 9-15.

As set forth in independent claims 1 and 9-15, in a system with first and second storage devices, a first feature of the invention includes setting up, on a port of the second storage device, access restriction information of a port of a first storage device to which a volume, of which the port is utilized for access, is assigned.

Additionally, as set forth in claims 1 and 9-15, a second feature of the invention includes that the access restriction information is set up on the port of the second storage device on the basis of access restriction information and information of a volume of each port that the first storage device has, which are obtained through a second network (claims 1 and 9-12), a network I/F unit utilized for connecting to a second network (claims 13-14), or a LAN I/F unit (claim 15).

As will be discussed in more detail below, the prior art does not teach or suggest, at a minimum, the above-described features.

## **2. Discussion of the References Deemed to be Most-Closely Related**

The patent to O'Hare et al., US 6484173, discloses a control system for controlling access to a data storage device that includes defining a plurality of groups that access the data storage device, defining a plurality of pools of devices of the data storage device, and, for at least one of the groups, determining access rights with respect to at least one of the pools. The pools of devices may include communication ports and/or memory segments of the storage element. The access rights may indicate whether system calls are allowed on the communication ports. In some embodiments, restricting access to a data storage device includes coupling each of a plurality of host requestor systems to the storage element by one of a plurality of ports provided for the storage element and selectively determining, for each of the ports, whether system calls are allowed, where, for the ports in which system calls are not allowed, a system call by the host systems coupled to the ports causes the storage element to indicate that the system call was not performed. In other embodiments, the access to pools of memory resources having a unique ID number is restricted to requestors having unique ID numbers in a data base that matches allowed requestors and request types to allowed pools of memory. (See, e.g., Abstract and column 1, line 63, through column 2, line 49.) However, unlike the present invention, O'Hare et al. do not disclose a system with first and second storage devices, that includes setting up, on a port of the second storage device, access restriction information of a port of a first storage device to which a volume, of which the port is utilized for access, is assigned, as recited in claims 1 and 9-15. Nor

do O'Hare et al. disclose that the access restriction information is set up on the port of the second storage device on the basis of access restriction information and information of a volume of each port that the first storage device has, which are obtained through a second network, a network I/F unit utilized for connecting to a second network, or a LAN I/F unit, as also recited in claims 1 and 9-15.

The patent to Ofek et al., US 6598134, and published PCT application to Ofek, WO 9709676, are directed to a system and method for online, real-time, transparent data migration from an existing storage device to a replacement storage device. When the replacement storage device receives an access request from a host, the replacement storage device scans a table to determine whether the data requested is stored on the first storage system or the replacement storage system. If the requested data is stored on the first storage system, the replacement storage system issues a read request to the first storage system in the format known to the first storage system. The first storage system retrieves the requested data and provides it to replacement storage system, which then provides the data to the host. The data is also written to the replacement storage system, and the table is updated. (See, e.g., Abstract, column 2, line 34, through column 3, line 20, and column 5, line 46, through column 6, line 27 of the '134 patent.) Thus, Ofek et al. teach accessing data on a first storage system through a replacement storage system. However, Ofek et al. do not teach setting access restriction information on a second storage device in accordance with the settings of a first storage device, as recited in claims 1

and 9-15. More particularly, Ofek et al. do not teach a system with first and second storage devices, that includes setting up, on a port of the second storage device, access restriction information of a port of a first storage device to which a volume, of which the port is utilized for access, is assigned, as recited in claims 1 and 9-15. Nor do Ofek et al. disclose that the access restriction information is set up on the port of the second storage device on the basis of access restriction information and information of a volume of each port that the first storage device has, which are obtained through a second network, a network I/F unit utilized for connecting to a second network, or a LAN I/F unit, as also recited in claims 1 and 9-15.

The patent to Saegusa, US 6745281, discloses a fiber channel connection magnetic disk device which performs management of the access right to logical volumes in the magnetic disk device by identifying a host. The fiber channel connection magnetic disk device manages the access right of every logical volume, whereby the management can be continuously performed even when a connection condition is varied. The fiber channel connection magnetic disk device has a plurality of fiber channel specification supporting port controllers, which comprises: a port controller for managing the relationship between an identifier allocated to the port of each host and a logical volume accessible from the port of the host having the identifier; and a local access right management table memory for storing the management state of a logical volume accessible from the port of an indicated host, the port controller being capable of rejecting an access from the ports of hosts other

than the port of the indicated host. Particularly, the port name defined in the fiber channel specification is used as the identifier of the port of the host. (See, e.g., Abstract and column 3, line 51, through column 4, line 10.) However, unlike the present invention, Saegusa does not disclose a system with first and second storage devices, that includes setting up, on a port of the second storage device, access restriction information of a port of a first storage device to which a volume, of which the port is utilized for access, is assigned, as recited in claims 1 and 9-15. Nor does Saegusa disclose that the access restriction information is set up on the port of the second storage device on the basis of access restriction information and information of a volume of each port that the first storage device has, which are obtained through a second network, a network I/F unit utilized for connecting to a second network, or a LAN I/F unit, as also recited in claims 1 and 9-15.

The patent to Blumenau et al., US 6799255, discloses a data processing network in which a large number of hosts can access volumes of data storage in a data storage subsystem. A storage controller for controlling access to data storage has a memory and at least one data port for a data network including host processors. The memory is programmed to define a respective specification for each host processor of a respective subset of the data storage to which access by the host processor is restricted, and each specification is associated with a host identifier stored in the memory. When the storage controller receives a data access request from a host processor, it decodes a host identifier from the data access



request, and searches the memory for a host identifier matching the host identifier decoded from the request. Upon finding a match, the respective specification of the respective subset for the host processor is accessed to determine whether or not storage specified by the storage access request is contained in the respective subset. If so, then storage access can continue, and otherwise, storage access is denied. Preferably the host identifier decoded from the request is a temporary address assigned by the network, and also stored in the memory in association with each respective specification is a relatively permanent identifier for the host processor. (See, e.g., Abstract and column 2, line 47, through column 3, line 20.) Thus, unlike the present invention, Blumenau et al. do not disclose a system with first and second storage devices, that includes setting up, on a port of the second storage device, access restriction information of a port of a first storage device to which a volume, of which the port is utilized for access, is assigned, as recited in claims 1 and 9-15. Nor do Blumenau et al. disclose that the access restriction information is set up on the port of the second storage device on the basis of access restriction information and information of a volume of each port that the first storage device has, which are obtained through a second network, a network I/F unit utilized for connecting to a second network, or a LAN I/F unit, as also recited in claims 1 and 9-15.

The patent to Kitamura et al., US 6816948, discloses an access restriction method and a data sharing method using a storage system in an SAN environment.

A computer system of the present invention includes a plurality of host computers and a storage system. The storage system includes at least one disk device, and is connected to each host computer via a Fibre Channel switch. In the computer system, the storage system rejects access from each host computer in principle. A host computer which desires to access the storage system sets a request to the storage system that the storage system allows the access. The setting for access allowance/rejection can be conducted for each desired area of the disks. In the computer system, one of the host computers includes a unit to indicate the setting/release of access allowance for the storage system. When a host computer desires to access data in the storage system, the host computer sends a request of access allowance setting to the pertinent host computer including the unit. When the pertinent host computer issues an indication to the storage system, the storage system conducts certification using a password. The indicating host computer including the unit indicates to the storage system whether to allow the access to a pertinent area on the disk so that the computer having issued the access request is able to access data on the disk. Thereafter, the computer having issued the request accesses the data on the disk. When the access is completed, the computer requests the indicating computer to release the setting of access allowance. The indicating computer indicates the storage system to release the access allowance setting for the area. The storage system accordingly releases the setting of access allowance for the area. (See, e.g., Abstract and column 1, line 61, through column 2, line 29.) However, unlike the present invention, Kitamura et al. do not disclose a

system with first and second storage devices, that includes setting up, on a port of the second storage device, access restriction information of a port of a first storage device to which a volume, of which the port is utilized for access, is assigned, as recited in claims 1 and 9-15. Nor do Kitamura et al. disclose that the access restriction information is set up on the port of the second storage device on the basis of access restriction information and information of a volume of each port that the first storage device has, which are obtained through a second network, a network I/F unit utilized for connecting to a second network, or a LAN I/F unit, as also recited in claims 1 and 9-15.

The patent to Matsumoto et al., US 6851020, discloses a disk array connected to a storage area network via a fiber channel that has one or more ports each controlled by a processor. The disk array with one port and one processor executes online processing and backup processing at the same time while considering an online processing load. A port controller not only accepts a request from a host computer but issues a request to other storage controllers to allow online processing and backup processing to be executed at the same time. In addition, the disk array, if provided with a plurality of ports, selects ports or schedules processing depending upon the load to prevent backup processing from affecting online processing performance. (See, e.g., Abstract and column 2, line 47, through column 3, line 21.) However, unlike the present invention, Matsumoto et al. do not disclose a system with first and second storage devices, that includes setting up, on a port of

the second storage device, access restriction information of a port of a first storage device to which a volume, of which the port is utilized for access, is assigned, as recited in claims 1 and 9-15. Further, Matsumoto et al. do not teach that the access restriction information is set up on the port of the second storage device on the basis of access restriction information and information of a volume of each port that the first storage device has, which are obtained through a second network, a network I/F unit utilized for connecting to a second network, or a LAN I/F unit, as also recited in claims 1 and 9-15.

The published patent application to Yokokura, US 20010052018, discloses a network system and access restriction method for a network device and storage medium. When access is attempted by a device equipped with Web client capabilities, a device connected to a network and equipped with Web server capabilities judges whether to restrict the access. If it is judged that the access should be restricted, information about the reason for the access restriction is sent regardless of the information possessed by the device equipped with Web client capabilities. After a start-up of the network device equipped with Web server capabilities, if the Web client installed on a computer attempts to access the Web server, the Web server refers to the access restriction information stored in the storage means of the network device and judges whether an access restriction should be applied. The access restriction information mentioned above is set by a device manager and used to decide whether to restrict access to the Web server on

the network device. (See, e.g., Abstract and paragraph 6 and Figure 3.) However, unlike the present invention, Yokokura does not disclose a system with first and second storage devices, that includes setting up, on a port of the second storage device, access restriction information of a port of a first storage device to which a volume, of which the port is utilized for access, is assigned, as recited in claims 1 and 9-15. Nor does Yokokura teach that the access restriction information is set up on the port of the second storage device on the basis of access restriction information and information of a volume of each port that the first storage device has, which are obtained through a second network, a network I/F unit utilized for connecting to a second network, or a LAN I/F unit, as also recited in claims 1 and 9-15.

#### **(F) CONCLUSION**

As demonstrated by the above discussion, the references fail to teach or suggest, at a minimum, a system with first and second storage devices, that includes setting up, on a port of the second storage device, access restriction information of a port of a first storage device to which a volume, of which the port is utilized for access, is assigned, as recited in claims 1 and 9-15.

Additionally, the references fail to teach or suggest, at a minimum, that the access restriction information is set up on the port of the second storage device on the basis of access restriction information and information of a volume of each port that the first storage device has, which are obtained through a second network

(claims 1 and 9-12), a network I/F unit utilized for connecting to a second network (claims 13-14), or a LAN I/F unit (claim 15), as recited in claims 1 and 9-15.

Thus, it is submitted that all of these claims are patentable over the cited references taken individually, or in combination with each other. The remaining claims are dependent claims, claim additional features of the invention, and are patentable at least because they depend from allowable base claims. Accordingly, the requirements of 37 CFR §1.102(d) having been satisfied, the Applicants request that this Petition to Make Special be granted and that the application be examined according to prescribed procedures set forth in MPEP §708.02 (VIII).

The Applicants prepared this Petition in order to satisfy the requirements of 37 C.F.R. §1.102(d) and MPEP §708.02 (VIII). The pre-examination search required by these sections was "directed to the invention as claimed in the application for which special status is requested." MPEP §708.02 (VIII). The search performed in support of this Petition is believed to be in full compliance with the requirements of MPEP §708.02 (VIII); however, Applicants make no representation that the search covered every conceivable search area containing relevant prior art. It is always possible that prior art of greater relevance to the claims may exist. The Applicants urge the Examiner to conduct his or her own complete search of the prior art, and to thoroughly examine this application in view of the prior art cited above and any other prior art that may be located by the Examiner's independent search.

Further, while the Applicants have identified and discussed certain portions of each cited reference in order to satisfy the requirement for a "detailed discussion of

the references, which discussion points out, with the particularly required by 37 C.F.R. §1.111(b) and (c), how the claimed subject matter is patentable over the references" (MPEP §708.02(VIII)), the Examiner should not limit review of these documents to the identified portions, but rather is urged to review and consider the entirety of each reference.

**(G) FEE PAYMENT (37 C.F.R. 1.17(h))**

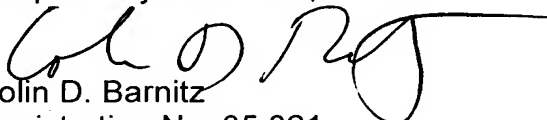
The fee required by 37 C.F.R. § 1.17(h) is to be paid by:

☒ the Credit Card Payment Form (attached) for \$130.00.

☐ charging Account 50-1417 the sum of \$130.00.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417. A duplicate of this petition is attached.

Respectfully submitted,

  
Colin D. Barnitz  
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PTO/SB/17 (12-04)

Approved for use through 07/31/2006. OMB 0651-0032  
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# FEE TRANSMITTAL for FY 2005

Effective 12/08/2004. Fees pursuant to the Consolidated Appropriations Act.  
2005 (H.R. 4818).

<b>TOTAL AMOUNT OF PAYMENT</b>		<b>(\$)</b> 130.00	<b>Attorney Docket No.</b>	TSM-35
<b>METHOD OF PAYMENT</b> (check all that apply)		<b>FEE CALCULATION</b> (continued)		
<input type="checkbox"/> Check <input checked="" type="checkbox"/> Credit Card <input type="checkbox"/> Money <input type="checkbox"/> Other <input type="checkbox"/> None Order		<b>3. ADDITIONAL FEES</b>		
<input checked="" type="checkbox"/> Deposit Account: Deposit Account Number: 50-1417 Deposit Account Name: MATTINGLY, STANGER & MALUR, P.C.				
<input type="checkbox"/> The Director is authorized to: (check all that apply) <input type="checkbox"/> Charge fee(s) indicated below <input checked="" type="checkbox"/> Credit any overpayments <input checked="" type="checkbox"/> Charge any additional fee(s) during the pendency of this application. <input type="checkbox"/> Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.				
<b>FEE CALCULATION</b>				
<b>1. BASIC FILING FEE</b>				
Large Entity Fee Code	Small Entity Fee Code	Fee (\$)	Fee (\$)	Fee Description
1011	2011	300	150	Utility filing fee
1012	2012	200	105	Design filing fee
1013	2013	200	100	Plant filing fee
1014	2014	300	150	Reissue filing fee
1005	2005	200	100	Provisional filing fee
1111	2111	500	250	Utility Search fee
1112	2112	100	50	Design Search fee
1113	2113	300	150	Plant Search fee
1114	2114	500	250	Reissue Search fee
1311	2311	200	100	Utility Ex. fee
1312	2312	130	65	Design Ex. fee
1313	2313	160	80	Plant Ex. fee
1314	2314	600	300	Reissue Ex. fee
<b>SUBTOTAL (1)</b>		0.00		
<b>2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE</b>				
Total Claims -20 = x 50 =		Fee from below		
Indep. Claims -3 = x 200 =		Fee Paid		
Multiple Dependent		360 =		
Large Entity Fee Code	Small Entity Fee Code	Fee (\$)	Fee (\$)	Fee Description
1202	2202	50	25	Claims in excess of 20
1201	2201	200	100	Independent claims in excess of 3
1203	2203	360	180	Multiple dependent claim, if not paid
1204	2204	200	100	** Reissue independent claims over original patent
1205	2205	50	25	** Reissue claims in excess of 20 and over original patent
<b>SUBTOTAL (2)</b>		0.00		
		Other fee (specify)		
		*Reduced by Basic Filing Fee Paid		
		<b>SUBTOTAL (3) (\$)</b>		
		130.00		

<b>SUBMITTED BY</b>		<b>Complete (if applicable)</b>	
Name (Print/Type)	Colin D. Barnitz	Registration No. (Attorney/Agent)	35,061
Signature		Telephone	(703) 684-1120
		Date	September 8, 2005

The collection of information is required by 37 CFR 1.17 and 1.171. The information is required to obtain or retain a benefit by the public, which is to be paid by the USPTO (process) an application. Confidentiality is governed by 38 U.S.C. 122 and 37 CFR 1.14. The collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time and cost may vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing the burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1480, Alexandria, VA 22313-1480. DO NOT SEND FEES ON COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1480, Alexandria, VA 22313-1480.

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